Listing of claims:

Please cancel claims 1-6 and 14-20. Please amend claims 8 and 22. No new matter has been added.

In the Claims:

Claims 1-6. (canceled)

Claim 7. (original) A method of preparing a polyacrylamide gel, the method comprising polymerizing acrylamide in the presence of a cross-linking agent, water, a buffer system for the polyacrylamide gel and a polymerisation means, wherein the buffer system comprises Tris(hydroxymethyl)aminomethane at the concentration range 0.15 to 0.25 M titrated with hydrochloric acid to a pH between 6.5 and 7.5.

Claim 8. (currently amended) The method according to claim 7 wherein the cross-linking agent is N,N'- methylene-bis-acrylamide, and the polymerisation means is selected from redox systems using; ammonium persulfate and N,N,N',N'-tetramethylethylenediamine (TEMED), photoinitiation systems using riboflavin, ~~or~~ and thermal initiation using; ammonium persulfate.

Claim 9. (original) The method according to claim 8 wherein the buffer system comprises Tris(hydroxymethyl)aminomethane at 0.18 to 0.22 M and having a pH of 6.8 to 7.2.

Claim 10. (original) The method according to claim 9 wherein the buffer system comprises Tris(hydroxymethyl)aminomethane at about 0.20 M and having a pH of about 7.0.

Claim 11. (original) The method according to claim 7 wherein the gel has an acceptable shelf-life of at least 6 months after storage at about 4°C, wherein the acceptable shelf-life being determined by the gel producing a resolving protein separation migration pattern under electrophoresis conditions.

Claim 12. (original) The method according to claim 11 wherein the gel has an acceptable shelf-life of at least 9 months.

Claim 13. (original) The method according to claim 12 wherein the gel has an acceptable shelf-life of about 12 months.

Claims 14 - 20. (canceled)

Claim 21. (previously presented) A method of performing electrophoresis, comprising:

(a) applying a sample containing one or more compounds to be separated to a gel of an electrophoresis apparatus whereby the apparatus contains a separating polyacrylamide gel composed of a non-stacking polyacrylamide gel and a buffer system composed of Tris(hydroxymethyl)aminomethane at the concentration range 0.15 to 0.25 M titrated with hydrochloric acid to a pH between 6.5 and 7.5.;

(b) providing an electrode buffer, whereby the electrode buffer is Tris(hydroxymethyl) aminomethane and 4-(2-hydroxyethyl)piperazine-lethanesulphonic acid (HEPES); and

(c) subjecting the gel to an electric field for sufficient time such that at least one compound in the sample is caused to move into the gel..

Claim 22. (currently amended) The method according to claim 21 wherein the Tris(hydroxymethyl) aminomethane and 4-(2-hydroxyethyl)piperazine-lethanesulphonic acid (HEPES) each ~~electrode buffer has~~ have a concentration of 0.05 to 0.125 M and ~~has~~ have a pH of 7.5 to 8.5.